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JOURNAL OF
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All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK3WI: Sundays, 1100 hours EST, 7145 Kc. and 2000 hours EST, 55 and 144 Mc. No frequency checks available from VK3WI. Intrastrat working frequency, 7125 Kc.

VK3VJ: Sundays, 1130 hours EST, simultaneously on 3573 and 7145 Kc. 51.016 and 146.25 Mc. Intrastrat working frequency 7125 Kc. Individual frequency checks of Amateur Stations given when VK3VJ is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3560 and 14943 Kc. 3560 Kc. channel is used from 0915 hours to 1015 hours each Sunday for the W.I.A. Country hook-up. No frequency checks available.

VK3VJ: Sundays, 1000 hours EAST, on 7145 Kc. Frequency checks are given by VK3MD and VK3VJ by arrangements only on the 7 and 14 Mc. bands.

VK3VJ: Sundays, 0930 hours WEST, on 7145 Kc. No frequency checks available.

VK3VJ: Sundays, at 1000 hours EST, on 7145 Kc. and 146.25 Mc. No frequency checks are available.

EDITORIAL



WHY DON'T WE RAISE OUR STATUS?

When the long slanting rays of the winter sun breaks through the early morning mist amongst the trees in the garden turning it into a fairy-like phantasy of light and shade; when the same trees are budding into early leaf and a galaxy of colour spreads itself throughout the land as the blossoms burst their buds; when the blue-green of the sea stands out in soft relief against the glare of the hot white sands, and holiday makers seek shelter wherever the flora permits; when the days grow shorter and the leaves on the trees turn from green to yellow, brown, russet and orange, and the green of the turf changes to a kaleidoscopic pattern; when all these changes of nature take place and human beings change their habits to suit the requirements of the seasons, you will see people abroad with a camera. They're photographers! Anybody will tell you that!

Mr. Public knows they are photographers because they carry a camera—a piece of equipment recognised by the masses and of which almost everyone has an elementary working knowledge. And even if these photographers are heard to loosely refer to having "shot the scene at F.16 at 1/150th second using a K2 filter," the average Mr. Public recognises them as photographers.

An experimenter with model aircraft, boats, railways and other working facsimiles of their larger brothers; the home carpenter and engineer, the specialist in bulb cultivation or some other section of the horticultural art—all these members of the hobby conscious community are easily recognised by Mr. Public. He has no trouble at all in having some elementary knowledge of the other man's interests.

But what of the Amateur? Generally speaking he is referred to as either a radio maniac or a wireless crank—neither of which is really an elevating status in which hobbyists such as ourselves should be classified.

Why is it that Amateurs generally are categorised thus? Are we ourselves to blame? Is it because we reply to the layman's questions in such high falutin' terms so much above his head technically that he thinks we are mad? Or is it that "wireless" is something so incomprehensible to the average person that he considers we must be maniacs or cranks to possibly understand such things—and this in spite of school curriculums having included physics, chemistry and electricity and magnetism for the past two decades or more?

Whatever the reason, it is time we did something about educating Mr. Public, and this we can assuredly do without raising his rancour or squashing his human tendency to enquire of something strange to his normal habitude.

We should never let pass an opportunity to explain our hobby and its attributes to anyone who shows interest. But when we explain the intricacies of our hobby let us remember to use terms that the layman can understand; let us use the analogies we were taught in our early studies; let us remember that unique occasion when we entered into studies of wireless bereft of even elementary knowledge of such things ourselves. It was at this time that we ourselves needed a simple answer to our questions.

We as technical hobbyists can understand the idiosyncrasy of Mr. Public when he calls us a maniac or a crank, and we can improve our status greatly by giving his enquiries intelligible consideration. From his ranks must come the future members to our ranks. Keep the thought well in mind—you'll find it will pay handsome dividends to you and the hobby of Amateur Radio and bring us into line with our fellow hobbyist, the photographer, the home carpenter, the engineer, the horticulturalist.

FEDERAL EXECUTIVE

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Multi-Band Tuning Unit

BY JOE ROGERS,* VK3TO

MULTI-BAND Tuning Units for the final stage of Amateur transmitters are so convenient and efficient that it is hard to account for the small number in use.

Whenever the writer, in describing his gear, mentions the multi-band tuning unit he usually receives replies such as, "What type of tuning unit did you say? Do you vary the coil with a tap switch?" with the usual final remarks, "What about sketching out the dope for me?"

Excellent tuners of the type to be described have appeared in both "A.R." and "QST," but whether Amateurs generally have not understood the benefits to be derived from their use or that they have appeared complicated and seemed beyond their ability to get going is hard to say, but the fact remains, there are few in use.

The writer has carried out many experiments in an endeavour to simplify the multi-band tuners previously described, the result being a unit that can be built by anyone and which will work the first time it is hooked up.

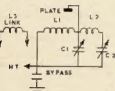


Fig. 1.

Examination of the theoretical diagram at Fig. 1 will show that if L1 be replaced with an r.f. choke, C1, C2 and L2 form a standard split-stator tank circuit which is exactly the way it operates. The coil is adjusted so that the range 30 Mc. to 14 Mc. is covered with some overlap at each end.

So far we are tuning the three high frequency bands, 28-30, 21-21.4, and 14-14.35 Mc. Now remove the r.f. choke and replace it with a coil L1, at the same time removing or shorting out L2. We now have the usual form of single ended circuit with condensers C1 and C2 in parallel. This circuit is adjusted to cover the range 7.15 Mc. to 3.5 Mc.

It will be noticed that both sections of the condenser C1 and C2 (which is a split-stator type with a maximum capacity of approx. 130 pF. per section) are in series on the high frequency bands and in parallel on the low frequency bands, giving almost an optimum L/C ratio on all bands.

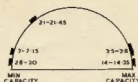


Fig. 2.

Our next problem is how to cover both ranges without switching, and the answer is simple and effective: Replace L2 or remove the short and the job is complete. Coil L2 acts merely as a long lead on the range 7.15 to 3.5 Mc., while coil L1 serves as a very effective r.f. choke on the range 30 to 14 Mc. and also serves to couple power to the load on all bands.

This unit does not cover the bands in sequence as might be expected, but as shown at Fig. 2.

In practice, coils L1 and L2 are wound on the same former and can be regarded as a single tapped coil. The recommended mechanical layout is as shown at Fig. 3.

Important.—It should be noted that the condenser frame is connected to high tension positive, making it necessary to use a good insulated coupling on the shaft and insulated feet on the frame.

The link winding is wound over the cold end of L1 and must also be well insulated.

A variable condenser of 0.00035 μ F. in series with the link gives adequate control of loading.

The theoretical diagram at Fig. 4 shows the completed unit.

Coils are wound 8 turns per inch on a 3 inch diameter former and are adjusted so that 30 Mc. and 7 Mc., or 14 Mc. and 3.5 Mc. do not appear at the same spot on the dial. Very slight adjustment of L1 or L2 will achieve the desired result.

Any split-stator condenser having a max. capacity of approx. 130 pF. per

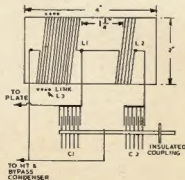


Fig. 3.

section and a reasonably low minimum capacity will serve provided the plate spacing is suited to the voltage in use.

The single section condensers from the TA12 transmitter do an excellent job when the three centre stator plates are sawn out.

Should you desire to use a different size former than 2 inches or one threaded to wind more or less than eight turns per inch, the following adjustment procedure is recommended.

Wind L1 with several turns more than you consider will be necessary, then wind L2 and adjust it for coverage of the high frequency range. Use your grid dip oscillator here and be sure to connect a small capacity, say 30 pF. to replace the tube plate and strays.

When L2 is completed you can adjust L1 with very little effect on your adjustment of L2, but this does not hold when the coils are adjusted in the reverse order.

The link winding specified is optimum when working into 75 ohm line and will need to be increased if 300 ohm or 600 ohm line is used.

Loading is approx. equal on all bands with a resistive load.

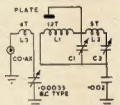


Fig. 4.

C1 and C2—130 pF. per section.

The writer uses this tuner with a band switched exciter using one wafer of the band switch to control relays switching in separate antennae for each band, thereby reducing band changing to two operations: (1) turn the band switch, (2) resonate the final. Loading is then touched up if necessary with the loading control condenser.

ACCURATE FREQUENCY TRANSMISSION RESULTS

Following is the result of the Accurate Frequency Transmissions from VK3WI on 27th August, 1953:—

3500 Kc.	.....	17 cycles low
3515	.....	7.5 " "
3545	.....	15 " "
3575	.....	98 " "
3605	.....	24 " "
3635	.....	30 " "
3665	.....	63 " "
3695	.....	28 " "
3725	.....	14 " "
3755	.....	1 " "
3785	.....	4.5 " "

* 61 Broadway West, Yallourn, Victoria.

THE "GAMMA" MATCH

BY E. GABRIEL,* VK2AVG

Many Amateurs strike matching difficulties when feeding an antenna with co-axial cable.

As the centre impedance of a half wave varies with height above ground and the proximity of surrounding objects, a co-axial cable feedline will seldom match in correctly, thus giving rise to a high standing wave ratio.

City Amateurs, and those with confined space, which makes the use of open wire or ribbon feed lines difficult, will find in the "Gamma" Match and co-ax cable a solution to their problems. This simple impedance matching device has considerably improved the writer's signal reports for both local and DX contacts on 40 and 20 metres.

THE ANTENNA

Cut a one-piece half wave wire for the centre of the band, or, merely bridge your present half wave dipole at the centre. The centre insulator, with a piece of $2\frac{1}{2}" \times 2\frac{1}{2}" \times \frac{1}{8}"$ perspex or similar material attached to it, supports the co-ax cable.

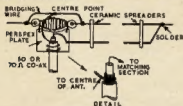


Fig. 1.

Bare the end of the co-ax so as to show about $1\frac{1}{2}"$ of the centre conductor and $1\frac{1}{2}"$ of the braid. Wind a few turns of tinned copper wire around the braid and solder quickly without excess heat, otherwise the polystyrene insulation will melt. Solder the end of this wire to the measured centre of the antenna. To the centre conductor of the co-ax solder a length of the same wire as used for the antenna, run this out to one side and space about $1"$ to $1\frac{1}{2}"$ from the main wire with ceramic or other spacers. Length of matching section depends upon the band—(see Fig. 2).

* 39 Narooma Rd., Northbridge, Sydney, N.S.W.

Attach a clip to end of this wire temporarily, seal the end of the co-ax carefully with tape and rubber solution to exclude moisture.

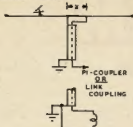


Fig. 2.

X = 2' 2" for 20 mx, 4' 4" for 40 mx.

THE FEED LINE

Any length of co-axial cable of any impedance may be used as the matching section can be altered to suit.

The braid of the co-ax is earthed at the transmitter and the coupling can be via a two or three-turn link to the final or a pi coupler.

MATCHING AND LOADING

Attach the matching section wire to the antenna by the clip at the approximate distance from the centre for the band, i.e. approx. 2' 1" to 2' 2" for 20 metres, and 4' 2" to 4' 2" for 40 metres if using 70 ohm co-ax cable. Raise the antenna up to its operating height and test load the transmitter.

By varying the point of attachment of the matching wire, the best loading conditions will be obtained. An r.f. ammeter is a useful indicator as the best loading is shown by maximum r.f. current and minimum p.a. plate current dip.

When satisfied, remove clip and solder wire to antenna.

Instruments such as a Maxwell bridge standing wave indicator may be used to check for the residual s.w.r., but the matching is close enough for the average Amateur.

A further reduction in s.w.r. can be obtained by inserting a small variable condenser to tune out inductive reactance of the matching section (see Fig. 3).

The "Gamma" match may be used where any antenna is fed at a current loop point, such as extended wires fed a quarter wave from one end.

This efficient matching system also facilitates the loading of parasitic beams

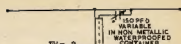


Fig. 3.

as it is far more flexible than the T match and other systems.

A big advantage of the match with normal wire antennae is broad band tuning, a change from one end of the band to the other requires only a minimum of retuning.

The writer wishes to acknowledge the assistance of VK2NI and others with experiments conducted.

REFERENCES

"QST" for September, 1949, and February, 1953. "A.R.R.L. Handbook."

Use of Foreign Languages

Once again the liaison between the Federal Executive of the Wireless Institute of Australia and the Wireless Branch of the Postmaster General's Department has resulted in a privilege for the Australian Amateur.

As from and including 1st October, 1953, Australian Licensed Amateurs will be able to transmit in languages other than English.

Accordingly, action is being taken by the Department to amend paragraph 32 of the Handbook for the Guidance of Operators of Amateur Stations to read as follows:—

"32. An Amateur Station Licensee may transmit and receive in any recognised language, plain language messages relating to experiments, or consisting of remarks of a personal nature which, by reason of their unimportance would not normally be transmitted through the public communications systems."

This simply means that Australian Amateurs can talk to their overseas Amateur friends in their language if they are able to, providing that Regulation 32 of the Handbook is adhered to and that such messages are plain language messages as distinct from coded or cyphered messages.

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Short Wave Receivers

11 Valves. Valve line-up: two 6G8G, four 6J7G, three 6U7G, two 6A8G. Five bands. 300 kilocycles to 7 Mc. Receiver, Control Box, 12V. Generator and Loop Aerial, £45.

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Westinghouse: Input 24v. 7 amp., output 540v. 250 Ma. £23/10/-
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Western Electric: Input 24v. 1.1 amp., output 250v. 0.08 amp. £2/6/-
Postage and Packing: 4/3, Interstate 8/6.
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A Simple Low Level Audio Peak Clipper

BY J. C. WATSON,* VK6JW

PRIOR to commencing this article, the writer wishes to acknowledge Philips' Technical Abstracts for the basic idea of the clipper; also assistance from VK6GH, W. G. Hayman, for his interpretation of oscilloscope patterns and technical advice, and VK6HL, H. B. Lang, for the loan of the oscilloscope.

The clipper to be described is perhaps the simplest of all such clippers and has the added advantage that no L/C or R/C filter appears necessary after the clipping stage. There are several essentials, however, for its correct installation:—

- (a) An audio oscillator set at 1,000 cycles per second.
- (b) An oscilloscope for correct adjustment of the clipping so that both positive and negative peaks are clipped equally and commence clipping together.
- (c) All coupling condensers after the clipper must be 0.1 μ F. or larger, otherwise low frequency distortion, shown by a tilt on the clipped peaks as seen on the oscilloscope, will cause trouble.

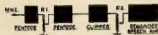


Fig. 1.

Fig. 1 serves to show the placement of the clipper. It is a simple triode—any—and may be used to amplify or not as desired, and may also be used with or without negative current feedback as desired. This will be discussed later. It will be noticed that two pentodes in cascade are used ahead of the clipper. This is necessary to enable sufficient voltage to be presented to the clipper grid circuit so that the latter can then more effectively clip the peaks of the voice frequencies.

Frequency restriction should be applied over the first two pentode stages (the author deems it a must that all Amateur telephony should have a restricted range of voice frequencies particularly above 3,000 c.p.s.). As mentioned previously, good bass response is essential after the clipper—this means that coupling condensers of at least 0.1 μ F. are necessary.

It will be noticed from Fig. 2, which is the circuit of the clipper, that the cathode and plate resistor values are not shown. Depending upon the individual circumstances as to whether the valve is to amplify or not, then R4 can be made any convenient value from 10,000 ohms to 50,000 or 100,000 ohms. However, once this resistance value is chosen, then the cathode resistor will hold only for this value of plate load.

It is optional whether C1 is used or not. Its omission will give negative current feedback with reduced gain of the stage. For the general operation of the clipper, it does not matter whether this is wired in or removed.

ADJUSTMENT

An audio oscillator set at 1,000 c.p.s. and an oscilloscope set to give a sine wave on the screen with the 1,000 c.p.s. modulated note are essential to obtain the correct value of R3.

The audio oscillator is connected to the microphone input; the oscilloscope between clipper plate and ground. The voltage input to the microphone stage should approximate that of the microphone in use. R1 in Fig. 1 now becomes the clipping control and should be set between one third and half on.

A potentiometer of the wire wound variety about 10,000 to 20,000 ohms should be connected with one side to the cathode of the clipper and the moving arm to ground.

After switching on and adjusting the sine wave on the screen of the c.r.o., the cathode potentiometer is varied until both sides of the sine wave are clipped equally, and commence to clip together. This adjustment is most easily found by increasing and decreasing R1 and watching the screen of the c.r.o. while adjusting the value of the potentiometer. Once this adjustment is correct, the value of the resistance from cathode to ground is read on an ohmmeter and this value wired in circuit.

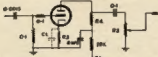


Fig. 2.

Remember that this value of cathode resistor will be good only for the particular triode valve being used and the particular value of its plate load resistor. Incidentally R2 may be turned off completely while the above adjustment is being carried out.

METHOD OF OPERATION

R1 now becomes the clipping control while R2 becomes the volume or gain control. Normally R1 is set with light clipping as shown on the oscilloscope connected between clipper plate and ground, and R2 is set to modulate the rig 100 per cent.—again as shown on the oscilloscope connected in the normal manner for such observation. R2 should then be left or locked in this position and the amplifier gain, and hence the modulation, controlled purely by R1.

In this manner a signal may be radiated with no clipping—yet with a high modulation level—or a medium to heavily clipped signal with modulation peaks not exceeding 100 per cent. This is of course with the usual proviso that all subsequent stages from the clipper are operating linearly.

After the above adjustments are completed the audio oscillator should be set anywhere from 300 to 500 c.p.s. and the sine wave—clipped—should be observed at the grids to ground and

plates to ground, with the oscilloscope, on stages after the clipper. If the square topped wave is badly tilted, then in an r.c. stage the grid coupling condenser is not large enough or is no good, and if an l.c. stage, such as transformer coupling, then the transformer base response is insufficient.

Care should be taken too, to ensure that with the two potentiometers set at their maximum working position that no clipping is occurring through overload to any of the stages in the amplifier. You may be surprised to find that some class A voltage amplifiers become very effective clippers—one side of the sine wave only—when gain controls are advanced to near maximum, which seems to be a habit inbred in every Ham. This is the reason why two pentode stages are used ahead of the clipper, so that the clipping control need never be advanced further than 50 per cent. on and thus the second pentode should be working well within its linear range.

In conclusion, the author wishes to also thank VSIAD, E. C. Yates, for the many checks given both on the pan-adaptor and via the tape recorder. This clipper has now been in use for six months or more from this station and nearly as long from VK6AP, so that anyone interested can observe or hear the resulting modulation. In all checks given visually by pan-adaptor the modulation levels of VK6JW and VK6AP are never below 85 to 90 per cent, many times much higher and without any sign of splatter. Perhaps the best recommendation is from local Hams who have not complained of splatter, indicating that there is none or that they are being extremely tolerant.

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Pre-war Amateurs will undoubtedly recall the London-Melbourne Air Race in 1934 to celebrate the Centenary. During this event, Australian Amateurs maintained a listening watch and were able to perform a great service to the participants. All Australian Amateurs are asked to co-operate to maintain a listening watch during the forthcoming London-Christchurch Race so that assistance can be given in the event of an emergency.

H.F. and v.h.f. channels used will be those allotted to the respective Flight Information Regions as directed by the Civil Aviation Authorities. Full details regarding these and other relative data will be made available for Divisional Broadcasts as received. If in doubt, contact your Divisional Secretary.

AMATEUR TELEVISION

It is regretted that Part Four of the series of articles on Amateur Television will be held over until next issue owing to lack of space.

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Series Connection of Rectifier Power Transformers

BY V. J. McMILLAN,* VK2AWN

As a result of reading some "mail" between a VK3 and VK5 on 40 metres, it occurred to the writer that an article on the theory and practise of running rectifier power transformers in series would be of interest to a number of Hams.

There has been quite a number of 115-volt primary transformers on the market (ex-American disposal stock) at a relatively cheap figure. One particular transformer which comes to mind consists of a primary rated at 115 volts, a centre tapped secondary rated at 350 volts per side, and several filament windings. On the assumption that this transformer was designed to run on 50 cycles supply, it is quite possible to connect two similar transformers in series and thereby obtain a transformer having a capacity of approximately twice the rating of a single transformer. That is to say, we can have a transformer group which will give 700 volts per side instead of 350 volts per side and our primary voltage is now 230 volts instead of 115 volts. The advantages are obvious since we can now obtain a final direct current voltage of the order of 550-900 volts with a primary voltage more in line with Australian standards. The actual voltage will depend on the type of rectifier, resistance of the choke and whether we have a choke or condenser-type input filter.

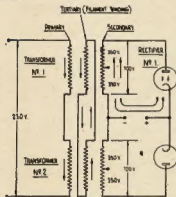


Fig. 1.

In order to obtain the full benefits of this arrangement and to obtain minimum voltage regulation and also minimum iron loss (which results in core heating), we must provide a low impedance path between the two transformers. This is readily accomplished by paralleling the largest capacity filament windings.

Fig. 1 shows the connections between the two transformers and also the relative direction and magnitude of the current flow in the windings with equal turns in each of the three windings. (The actual current will, of course, depend on the turns ratio.)

It will be noted that under rectifier load conditions where only one tube is "firing" on alternate half cycles, the secondary load current in transformer No. 1 is counterbalanced to the extent of 50 per cent. in both the 115-volt primary winding and the tertiary winding in this transformer. The No. 2 transformer tertiary winding is energised from the tertiary winding of No. 1 transformer and this load current is reflected back into the primary of No. 2 transformer; since it is of the same value and direction as the primary current of No. 1 transformer, it offers a low impedance to this current flow. This sounds complicated, but is really quite simple if you refer to Fig. 1.

On the alternate half cycle the other rectifier "fires" and the current directions between the transformers change over, but otherwise behave in a similar manner to that just described.

A word of warning is necessary at this stage.

From the foregoing description it will be noted that the filament (tertiary) winding takes 50 per cent. of the secondary load current. Firstly make sure that the winding is capable of carrying this current. Secondly, if the transformer has more than one filament winding, do not parallel more than one winding unless you have facilities for checking the current in each winding. This is qualified by stating that the current division when more than one winding is paralleled, is dependent on the "mixed" winding impedances of all windings which are not readily calculable.

For the purpose of illustration we have assumed a "perfect" transformer, that is, one without losses or magnetising currents.

Those of you who have connected two transformers in series generally as shown, but without the paralleled filament windings, will tell me that it works alright. Sure it will work, but under very different conditions!

If we again assume two "perfect" transformers (that is, no iron loss or magnetising current), we find that with No. 1 rectifier firing and 100 per cent. load current in the secondary, we must draw 100 per cent. load current in the primary of No. 1 transformer (refer Fig. 2). This current must pass through the primary of No. 2 transformer in order to return to the other supply line. Since there is no load on the secondary of the No. 2 transformer, there is obviously no current required to counterbalance it in the primary. Therefore, the primary of No. 2 transformer will not pass the current from the primary of No. 1 transformer because a "perfect" transformer has infinite impedance.

These are a lot of words which say, in effect, that two "perfect" transformers could not work under these conditions. In practice both transformers have iron loss and magnetising current, and what actually happens is this. When No. 1 transformer primary current tries to pass through the No. 2 transformer

primary, it actually attempts to increase the magnetising and iron loss currents in the No. 2 transformer to a value necessary to counterbalance itself. To do this, it is necessary to apply a higher than normal voltage to the primary of No. 2 transformer which means that the 230 volts do not split 50/50 between the two transformers, but, in fact, the unloaded transformer has the highest voltage across the primary, and naturally the converse is true. That is to say, the loaded transformer has a lower than normal voltage across its primary which will naturally be reflected in the secondary output voltage.

You will not be able to measure this difference with an ordinary voltmeter since, on the alternate half cycle, the two transformers change over their functions and the net result is that an ordinary meter will read substantially 50 per cent. of the normal line voltage at the series connection between the primaries of the two transformers. If you have a c.r.o. however, some interesting wave forms should be observable at this point.

Keen students of transformer design may detect some imperfections in this theory, but it is sufficiently accurate to be of some practical use.

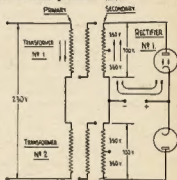


Fig. 2.

This theory satisfactorily explains the reason for an abnormally high "regulation drop" when referred to the final d.c. voltage. It also explains the reason for the higher iron loss and increased core heating, since on alternate half cycles, the transformer iron becomes more or less saturated.

A comparison of Fig. 1 and Fig. 2 reveals a difference in primary current with constant secondary load. Fig. 1 shows only one half the current in the primary as compared with Fig. 2. This obviously results in lower heating of the primary, and since transformer heating is a function of iron loss and copper loss in all windings (copper loss is a function of current and resistance), it follows that we can increase the load in either the secondary, or better still, in the tertiary (filament) winding.

It is not possible to give even a general guide to possible loading values which can be obtained under these conditions, since these values depend on the individual design of the transformer. Use your discretion—connect them up and try them. If you can hold your hand tightly on the core and windings after one hour's operation, it should be OK for normal Ham use.

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VK-ZL CONTEST, 1953

The Wireless Institute of Australia, in conjunction with the New Zealand Association of Radio Transmitters, has pleasure in announcing the Rules for the 1953 VK-ZL Contest, and hopes the conditions may be favourable to us during the contest week-ends of October.

Scoring is on the basis of one point per contact, but otherwise follows the familiar A.R.R.L. pattern.

The dates for the Contest are: C.W.—14th and 15th October, 1953; Phone—17th and 18th October, 1953. Times—0001 G.M.T. Saturday to 1200 G.M.T. Sunday.

The Receiving Section covers both C.W. and Phone.

The method of scoring is quite simple. One point is scored for each contact and the final score is obtained by multiplying the number of contacts by the number of countries (or VK-ZL districts) worked on each band.

A certificate will be awarded to the highest scoring stations in both Australia and New Zealand, and to the highest scorers for each particular country. Call areas of the United States and prefixes of British Isles are regarded as separate countries. The A.R.R.L. list of countries will otherwise be used.

Overseas logs should be received by the Chairman, Contest Committee, Box 1734, G.P.O., Sydney, Australia, not later than 31st January, 1954. VK-ZL logs should reach the Contest Committee not later than 30th November, 1954. Remember, please send your log in, irrespective of the number of contacts you have made.

DURATION.—(a) VK and ZL stations for Contest purposes will limit their period of operation on any consecutive 24 hours period on each week-end within the times given above. Once a contestant commences, he must not exceed 24 hours of operation, reckoned from each commencement time. (b) In overseas countries, stations may contact VK and ZL stations at any time within the periods shown above.

TRANSMITTING

1. There will be three main stations to the Contest, (a) Transmitting—C.W., (b) Transmitting—Phone, (c) Receiving—Phone. C.W. 1. Contestants may compete on one or more individual bands by submitting a log for each individual band.

2. A Contest is open to all licensed transmitting Amateurs and receiving stations in any part of the world. No prior entry need be made. Stations mobile stations (if outside Australian and New Zealand territorial waters) may count as contacts, but not as multipliers.

3. C.W. will be used for the first week-end of the Contest and Phone for the second week-end. Stations entering both C.W. and Phone Sections must submit separate logs for both Phone and C.W.

4. All Amateur frequency bands may be used. Cross-band operation will not be permitted.

5. Only one contact per band is permitted with any one station (for contest purposes).

6. Only one licensed Amateur is permitted to operate any one station under the owner's call sign. Should two or more operators operate any particular station, each will be considered a competitor and must submit a separate log under his own call sign. VK operators must abide by the P.M.G. Regulations in this regard.

7. Serial numbers to be exchanged during the Contest will be as follows:—

(a) For C.W. the first three figures will be the RST (telegraphy) report, followed by the

serial number of the contact, commencing with any number between 001 and 100 for the first contact and increasing in value by one (1) for each successive contact. If any contestant reaches 500 he will then start 001 and then continue 002, 003, etc.

(b) For Phone, the first two figures will be the RST (telegraphy) report, followed by the serial of the contact commencing with any number between 001 and 100 for the first contact and increasing in value by one (1) for each successive contact—five figures in all. If any contestant reaches 999 he will then start 001 and continue 002, 003, etc.

8. **SCORING.**—One point will be scored for each contact on a specific band with any overseas country (VK-ZL district for overseas stations). The final score will be obtained by multiplying the total contacts on each band by the total number of countries worked on each band.

The A.R.R.L. Official Countries List will be used except that in the case of the U.S.A. each call area shall be considered a country, and in the British Isles, each prefix. VK-ZL Districts are: VK1, 2, 3, 4, 5, 6, 7, 8; ZL1, 2, 3, 4.

10. **LOGS.**—(a) Logs must show in this order: Date, time (G.M.T.), band, call of station worked, serial number sent, serial number received, and new country or VK-ZL district worked.

(b) A separate log must be submitted for each band for which an individual entry is intended. Each log must show a summary as follows: The number of effective contacts, multiplier claimed and total points, together with a statement of call sign, name and address, and whether Phone or C.W., single-band or all-band operation.

Each page of the log must be numbered and signed by the Contestant.

The ruling of the Contest Committee of the W.I.A. will be final in the event of any dispute. 11. Entries from overseas stations should be endorsed "VK-ZL Contest" and should reach the Chairman, Contest Committee, Box 1734, G.P.O., Sydney, Australia, not later than 31st January, 1954. VK-ZL logs should reach the Contest Committee not later than 30th November, 1953.

RECEIVING SECTION

1. The rules for the Receiving Section are the same as for the Transmitting Section, but it is open to all members of any Shortwave Listeners' Society in the world. No transmitting station is permitted to enter for the Receiving Section.

2. The Contest times and the logging of stations once on each band per week-end are as for the Transmitting Section. Logs will be in the same form as for Transmitting Section.

3. To count for points, the call sign of the station being called, the strength and tone of the call, and the time of the call, together with the serial numbers sent by the calling station must be entered in the log. One point may be claimed for each entry complying with the above details.

4. It is not sufficient to log a station calling "CQ Contest".

5. VK receiving stations may log overseas stations and ZL stations. ZL stations may log overseas stations and VK stations. Overseas stations may log only VK and ZL stations.

6. Awards may be determined by the Contest Committee.

COPY OF SUMMARISED LOG SHEET

Section C.W. _____ Band _____ Call _____
Phone _____ Band _____ Call _____

VK-ZL Contest, 1953

Band	VK-ZL Dist. Countries	Contacts	Points
15 Mc.			
17 Mc.			
19 Mc.			
21 Mc.			
27 Mc.			
30 Mc.			
Total			

Name _____
Address _____

I hereby declare that my station was operated strictly in accordance with the Rules and spirit of this Contest and I agree that the decision of the Contest Committee shall be final and binding in all matters pertaining to the Contest.
Date _____ Signed _____

COPY OF W.I.A. STANDARD LOG SHEET

Page _____ W.I.A. Call No. _____ Pile QSL
Time Band Fwr. Sign Sent Rec'd Dial. Cmp. S-R

_____ I certify that I have abided by the Contest Rules and the P.M.G. Regulations.
Signed _____

ADDENDA AND SUPPLEMENT TO RADIOTRON DESIGNER'S HANDBOOK

We have been advised by Amalgamated Wireless Valve Co. Pty. Ltd. that an Addenda and Supplement Booklet to the Radiotron Designer's Handbook (4th edition, first impression) has been published.

This Booklet contains additions and revisions incorporated in the second impression (now being printed), and are available, free of charge, to all owners of Handbooks from the first printing, by applying to Amalgamated Wireless Valve Co. Pty. Ltd., 45-47 York Street, Sydney.



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STMA

FIFTY MEGACYCLES AND ABOVE

NEW SOUTH WALES V.H.F. GROUP

A meeting of the W.I.A. V.H.F. Group was held on 7th August at Science House. The meeting was a great success, being a continuation of the Group discussion on mobile gear and its operation. The discussion was conducted by Harry 2A1JZ, who did a fine job. Congrats Harry Horrie 2RL and Alf 2CE displayed and also described their gear. Fred 2ABC also brought in some equipment. A vote of thanks was given by Percy 2APQ on behalf of the meeting. The results of the Mid-Winter 3 Mhz Contest were given and are as follows: 2HO and 2LG tied for first place with 43 contacts; 2A1JZ was second with 40 contacts; 2HE and 2VJ tied for third place with 40 contacts; 2APQ, 35 contacts; 2ABR, 24 contacts. This Contest was over two nights from 7 till 11 p.m. Forty-nine stations participated. We were pleased to hear one Newcastle station on and participating. Max 2OT, who was received at 80 on the heights. Max used a 16 element beam with 11w input.

On the Sunday, 23rd August, another fox hunt was held with 10 mobile stations participating—a really good run up in mobile stations assembled at one point, Burwood Park. All started off at 9.45 a.m. after all checking in to Horrie 2HL (starter of the hounds). First to find the fox was 2A1JZ at 12.39 p.m. Second in was 2VJ at 12.39 p.m. An excellent location was selected by the "Old Dog" John 2ANF, accompanied by Mr. Ess Griffiths, and many stations had trouble finding him. The location was on the heights north-west of Windsor.

Mobile stations were VKs 2KX and party, 2EL and Cess Cronin, 2WJ and company, 2ARQ and 2YL, 2CE and 2YL, 2ARO and Alfie, 2EL and 2A1R, Neil and Gordon, 2OA and 2LG, 2A1JZ and 2YL accompanied by 2QZ and 2HO, 2ATO and 2A1Z. All were sorry to hear of Les' grief. 2ABE was along also on motor bike.

After a picnic lunch all re-assembled and another fox hunt was held, the winners of this latter event were 2AG first and 2ATO second. What a day! We wish to thank Fred 2ABC for standing by to take any lost hounds' phone calls. Thanks also to home stations who were operating, namely, VKs 2AST, 2AGT, 2ANK, 2NF, 2ABC, 2ABE. We also believe 2EL, of Newcastle, was also on the look out. They did look for you Dave OM. We found some really good mobile outfits on the field, not to forget 2ABO's "emil lower" a reliable beam on the car roof. It looked really neat.

We are glad to hear from Max 2OT of Newcastle that there are a number of stations on now VKs 2ADT, 2OT, 2ADE, 2XT, 2QR, 2ABR, 2A1J, 2AGY, 2IXY and 2AOR. Last but not least, 2BE. We are hoping to contact all these stations before long, in Sydney.

2HO and 2BE have a link under almost any conditions at any time on 144 Mc.—minimum strength 50. Pete 2ABA has a nice signal on the band xtal control and an A.S.V. rx. Alex 2ABE is on with mod. osc. and super regen. Jack 2AGT has a mobile rig on two, xtal control on 16.16 Mc. Pete 2ABR has also nice signal, xtal control, 50 in and about Sydney. Percy 2APQ has a new mast and tower going up so

look out chapel. John 2ANF is back on 144 and 2G Mc again and is to renew contacts with 2B Western Hams—2WIL, 2AGT, 2AMV, etc. F.m. will be used by John on these skeds. This is a fair vote DX hounds get a discount on going on 144 Mc., you will not be disappointed. There are seven f.m. transmissions in Sydney, and many stations on their rx's. How about it Newcastle?

2RU has also been heard in Sydney again. Jack 2ADT has been copied in Sydney 89 and 2VJ was copied in Sydney 89. 2RU was the V.H.F. Group a visit and arrived at our meeting. He was surprised we had such a large turn up, good luck to him. 2RU has been active of late on both six and two rx on a.m. and f.m.

2AG seems to have closed up, where are they?

60 Mc. has been rather active of late, 2VJ, 2EL, 2HO, 2ANF, 2ABR, 2A1R, 2RU, 2AGY, 2ADT, 2ABE and 2WJ.

Please note these dates—3rd, 4th and 5th October—the big Spring Field Day. On the 4th is the main day, the contest field day which begins at 8 a.m. until 8 p.m. Trophies will be awarded to the station who works the greatest number of stations over 50 miles from Sydney, also to the greatest number of stations in New South Wales and country stations, and also the near home portable station making the greatest number of contacts regardless of distance (three trophies in all)—2HO.

VICTORIAN V.H.F. GROUP

Many and varied are the devices nowadays encompassed in the field of electronics, and one of these is the Geiger counter, which was the subject of a lecture by the Victorian S.I.U. at the August V.H.F. meeting. The purpose of the instrument, as the lecturer explained, is to detect the presence of ionising radiations. There are three types of radiations associated, for example, with uranium—

1. Alpha particles which are helium neutrons.
2. Beta electrons.
3. Gamma rays (These are purely a high frequency radiation.)

The first two of these are not considered harmful, but the third, gamma rays, are extremely penetrating and dangerous to life when in quantity.

The heart of the Geiger counter is the Geiger tube which was developed by the German scientists, Geiger and Mueller. This tube will respond to gamma radiations and also to secondary electrons inducing sharp pulses of current flow in the tube. These pulses are amplified and may be heard by means of a speaker or speaker. In order to actuate a mechanical counter satisfactorily, it is necessary to feed the pulses into a modulator circuit which produces square wave pulses. Another method of indicating the intensity of radiation present is by a calibrated meter in the output of the instrument and this is usual for portable units. In demonstrating the instrument which 3IM had at the meeting, he showed the effect of cosmic radiation and also that emitted from a luminous wrist watch dial. Many questions were asked and Quentin was duly thanked for his most interesting lecture.

3LN then gave an account of a 2 mhz "tri-angulation test" held during August when there was much beam turning to obtain bearings on the portable station contacts from a number of suburban locations. During the interval between transmitting locations, bearings and signal strengths were exchanged between the 12 fixed stations active at the time. To avoid confusion a control station called each in turn. As most of the stations were in the eastern suburbs, and hopes soon to have a rx running on that band as well as a higher beam; his frequency is 14.150 Mc. 3LN plans to operate mobile and portable each Sunday afternoon, so keep a look out for his signal on 14.63 Mc. Another country station who has been active on 6 mhz is 2ATN, of Birchup. He is planning to try 2 mhz soon.—2ABA.

SOUTH AUSTRALIA

Having raised your curiosity about the Intra-State V.H.F. Contest, I am now able to announce the rules.

Intra-State V.H.F. Contest Rules:
Time: The Contest will be held over the period 0601 hours, Sunday (1.8. October), to 2300 hours, Saturday, 5th October. Competitors will choose the best 75 hours (i.e. 3-day period) between the above dates.
Rewards: 25 trophies. (1) Entrants must be members of the W.I.A. (2) Competitors may claim ONE point for each daily (0001-2400

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RADIOTRON DESIGNER'S HANDBOOK

• 1500 Pages • 1000 Illustrations • Size $8\frac{3}{4}" \times 5\frac{1}{2}"$

The first printing of the Radiotron Designer's Handbook, 4th Edition, was completely sold out within a few months of being released. For the many who missed obtaining a copy of this valuable work from the first run, a second impression has been completed and stocks are once again available from technical booksellers, or directly from

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hours) two-way contact with licensed stations. (3) Bands—30 Mc. and up. (4) Points may be claimed for contacts on each of the v.h.f. bands, e.g. 5AB QSOs SCD on the following frequencies, 5A, 14A, 28A and 57A Mc. during the 24-hour period, thus each station would be entitled to FOUR points. Rx Sentinels—An award will be made to the listener who logs the greatest number of stations on the v.h.f. bands.

General: (1) No logs are required to be sent in, but the Contest Manager reserves the right to call for any competitor's station log for perusal. (2) Any queries shall be dealt with by the Council and their decision shall be final. (3) Claims must be forwarded to the Contest Manager, Box 1254K, G.P.O., Adelaide, by Monday, 2nd November.

Jack NPD is busy locating prizes and I guess he will have something up the sleeve worth while up his sleeve—remember last year? I am not suggesting for a moment that we will land another QSO/etc., but don't leave your activity too late and bemoan your sluggishness when the winner collects.

This Contest is not for city chaps only either, so those enthusiasts in the country should lay their ears back and get their 24 over 34 beams rotating. You never know, there may be a trophy for the greatest distance QSO on the highest band used. Keep your ears on VK3W1.

Col SCF tells me that the boys from the South East are using the distance antenna for local work with Claude SCF finding one 8 point rise in signal strength. Tom STW, using the usual mod. osc., is really moulding the outfit now. Stewart SMZ temporarily forsakes the v.h.f. for the H.D. Contest.

Of course, our august friend—pascal I must not use peddling—has thrown the technical hot potato into my lap with the usual barrow of meadow mayonnaises about my being on the technical committee, etc., and therefore my promise to describe the dicone antenna. Well, I have found the details of the v.h.f. one in July, 1946, issue of "CQ" and the h.f. one in July, 1950, issue. Briefly, it is a vertically polarized antenna capable of highly efficient performance from 8 to 1/2 mc. No tuning stubs or matching trimmer are needed. The wave impedance is under 3:1 over the entire frequency range. WUYN has given the details as follows: 40-500 Mc. The outside braid of 52 ohm co-ax is fed to a cone of metal, side 15 in. base diam. 58.8 in. so that the co-ax feeds up the axis of the cone. Surrounding the apex of the cone

and attached to the centre conductor of the co-ax is a metal disc with a 36 in. diam. The disc is supported clear of the apex, by four pieces of 1/8 in. polystyrene sheathing, with two inches centre clearance. A bush of 1/8 in. diam. polystyrene rod and just over the 3 in. length supports the inner co-ax conductor as it passes up to attach to the centre of the disc. Models can be scaled down to work on the higher frequencies and briefly are—

(1) For 400-1200 Mc. dimensions become cone, side 8.5 inches, base opening 6-1/8 in. diam. and the disc, 4 1/2 in. diam.

(2) For 500-5000 Mc., cone side 7-3/8 in., base opening diam 11 in. and the disc, 7 in.

Radiation patterns give good omni-directional coverage ideal for local working with a vertical pattern of from 10 to 15 degrees major lobe over the complete band of frequencies. Copper gauze or a multiple network of wires can be substituted for the metal sheet. The whole article in "CQ" is well worth reading. In theory, it operates like a horn beam back over the co-ax, with the electric field developing between the under side of the disc and the outside of the cone. As the distance between them increases towards their edges, an impedance transformation occurs slowly from 50 ohms to free space, thus propagating the energy as a vertically polarized electric field. It's just too simple for words—SFS noted!

There has been a loc. free on 288 Mc. and only the licensed and the over-easy ones are showing any activity on that band. However, Jim SM is now established at Ferryden Park and is contemplating much portable activity, perhaps even to the Hummocks. With Jack SLN in a good seaside position there should be no trouble to establish contact along the gulf. Athol ELQ, Jack SRV and Joe BJO all pretty active with Jack much interested in the ZC/etc. English reader diagrams that Bob SRV has derived into with excellent results. He has forsaken the ZB rx that I mentioned in last issue and has put the 6J8 push-push mixer (brood band) and 6ed osc. into the front end, reduced the bandwidth of the I.F. channel by removing sundry resistors to finish up with the addition of a diode noise limiter and a 400 ohm resistor. Finds the lack of hiss somewhat soothing to his nervous system.

Ray SBT still playing around with a coaxial mixer—to be used on 270 Mc.—but testing on 288 Mc. with a larger model using an EA30 diode as the mixer sticking out of the co-axial

tank like a spark plug in a two-stroke m.b. However, like me, he is finding the end of term exams, etc., interfering seriously with his progress. The "terrible week." Both SBT and Col SRO, are always up to something, it makes me feel my eye when my students start to catch up on me!

Don't forget the lecture for the October meeting will be given by Bruce Mason who will give us the gem on looking for the necessary reader conditions for v.h.f. D.S. All in all October will be the v.h.f. month in this State, so good hunting chaps! SKU

Victorian C.D.E.N. Alerted

On Wednesday, 25th August, Emergency Co-ordinator, Reg Busch, was alerted by VK3EO and VK3ASG in connection with the lost hikers at Donna Buang. Reg was asked to keep a watch on the W.I.A. Emergency Frequency, on the hour, in case the other officials could not get through to Melbourne. Reg asked VK3EQ and VK3FO if they would stand by and co-operate. Although our Net was not required by the officials, the boys were there, and our Net is always on the ready.

Xtals for 144 Mc. have been forwarded to VKs 3YV, 3KR, 3CI, 3UI, and 3PF to enable them to work on the C.D.E.N. 144 Mc. Net. The Eastern Zone are now active in this spectrum.

Any VK3 members of W.I.A. who are interested in this work, should get in touch with Reg Busch, VK3LS, or the Secretary. It's interesting work chaps. The Net holds a practice every Sunday morning at 10.30 a.m. on 3501 and 7002 Kc. Interstate members are requested to contact their Divisional Secretary for information of the set-up in their own State.

"Q-PLUS" MAGNETIC BIAS OSCILLATOR COIL—TYPE OME

PAGE 1

PHYSICAL SIZE 1 3/8 inch diam. x 2 1/2 in.

PIN CONNECTIONS.

- 1—Grid
- 2—Low 2 output
- 4—Plate
- 5—Low 2 output
- 6—B +

MOUNTING—2 x 1/8 in holes (1 3/8 in apart)

OUTPUT—Depending on valve, etc. 2 watts High, medium or low impedance.

PRIMARY INDUCTANCE . . . 3 MH (in can)

SECONDARY INDUCTANCE 2.4 uH (in can)

FREQUENCY—With .004 ufd condenser—40 Kcs.

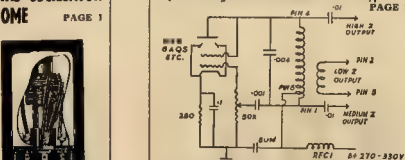
REMARKS

A single winding Hartley type oscillator coil for use with 6V6, 6AQ5, or other output pentodes. For lower harmonic distortion these may be triodes. For circuit recommendations see page 2.

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"Q-PLUS" Magnetic Bias Oscillator Coil—Type Ome

PAGE 2



The Q plus O.M.E. magnetic bias coil has been developed to provide in conjunction with other components, etc. the superoxide bias voltage needed for tape recording and erasing. The circuit provided herewith has been found to be continuously adjustable, but the following points should be noted.

- 1 Greater output may be obtained by using the valve as a pentode—but at the cost of harmonic distortion. To do this merely take screen to B plus. Reducing cathode bias resistor, even to zero, will also increase output but care should be taken in case the valve stops oscillating.
- 2 B plus should never exceed 320V.
- 3 High impedance output is taken from plate and earth via 40 ufd condenser as shown. No load volts at this point should be 300-320 volts (use only VTVM). A load of less than 250V will stop the valve oscillating. It may be necessary to provide a series resistance with some heads to prevent this. Max. energy from low impedance winding occurs at 10 ohms. Similarly too low a load will stop the valve oscillating.

In order to correctly set the potentiometer the oscillator output should be viewed on a C.R.O., and set to the maximum output that retains a good sine wave output. The iron core should normally be used in its outer-most position. It is useful for varying the frequency slightly so as to avoid interference especially when using the recorder for recording broadcast items.

DX ACTIVITY BY "K3AAH"

As is well known to readers, this column had originally been established by Frank ZQL, text-QZL, until Ray TRK took over about 12 months ago. For reasons explained by Ray in the September issue, I shall carry on for the time being. Before reporting on this month's DX activities, I should like to offer a word of appreciation to both Frank and Ray for the excellent job they have done. All readers have undoubtedly enjoyed perusing this page and will agree with me that the column provides some interesting reading at all times. It may be difficult to maintain this high standard, but I shall endeavour to write these notes to everybody's satisfaction and am sure that, with your assistance, this will be possible.

DX HIGHLIGHTS

It happened at last—the expedition to Easter Island took place during the first half of August. Unfortunately, only few VKs were lucky in contacting CE0AA. TKB being his first VK.

FW8AB, 7 and 14 Mc. is a station on Wallis Island, which counts as a country for the 30 U.F. Award, but is not included in the official DX C.C. list (thanks BJ for dope).

By the time these notes reach you L08SD has probably been active from Christmas Island (thanks GQ).

BAND CONDITIONS

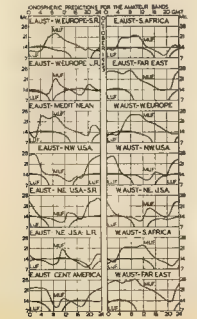
3.3 Mc. DX conditions have been unsteady throughout the month. Atmospheric and other noises usually result in poor receiving conditions on this band. I nevertheless felt that it would provide better DX possibilities if more overseas DXers would be active. Contents indicate that the good old 30 m2 band is not the worst DX band after all. No DX other than W land has been reported this month.

Don't VDZ reports W8CIV, W4TLE on phone, while Scott IAF and Doug 8BY, who is using low power, mention QSOs with numerous Ws on c.w. My own list shows ZK1BG*, V8CUC, and Ws.

7 Mc. This band offered fair to good DX conditions to all continents during the past weeks. It normally opened to Europe and North Africa on the short path. European openings via the long path seemed to be erratic, but proving good signal strengths at times. Central American stations were observed around 1000-1200h, while South American conditions appeared to be unsteady. Signals from W land, Far East, and Pacific Islands were fairly consistent throughout the month.

* 10 Beigravva Ave., Box Hill North, E.13, Vic.

PREDICTION CHART FOR OCT., 1953



Operators on Macquarie Island enjoyed conducting a series of Ws, K17s*, and V2s* as reported by Scott IAF. Noel 8AHH QSOed Ws*, K17s*, and G8NF. 8AHH mentions that Laurie has now worked 100 countries on 7 Mc. c.w. and one country on phone, making a total of 140 worked. Eric BERS183 has done some interesting work in the band. He has worked DX like F8KRS, F8MR, LURC1 (2155), DUTSV, VK1AF, VK8GM, VK8GW, VK8RA1, UQAN, UQ8C, UQ8D, UQ8E, UQ8F, UQ8G, UQ8H, UQ8I, UQ8J, UQ8K, UQ8L, UQ8M, UQ8N, UQ8O, UQ8P, UQ8Q, UQ8R, UQ8S, UQ8T, UQ8U, UQ8V, UQ8W, UQ8X, UQ8Y, UQ8Z, UQ9A, UQ9B, UQ9C, UQ9D, UQ9E, UQ9F, UQ9G, UQ9H, UQ9I, UQ9J, UQ9K, UQ9L, UQ9M, UQ9N, UQ9O, UQ9P, UQ9Q, UQ9R, UQ9S, UQ9T, UQ9U, UQ9V, UQ9W, UQ9X, UQ9Y, UQ9Z, UQ0A, UQ0B, UQ0C, UQ0D, UQ0E, UQ0F, UQ0G, UQ0H, UQ0I, UQ0J, UQ0K, UQ0L, UQ0M, UQ0N, UQ0O, UQ0P, UQ0Q, UQ0R, UQ0S, UQ0T, UQ0U, UQ0V, UQ0W, UQ0X, UQ0Y, UQ0Z, UQ1A, UQ1B, UQ1C, UQ1D, UQ1E, UQ1F, UQ1G, UQ1H, UQ1I, UQ1J, UQ1K, UQ1L, UQ1M, UQ1N, UQ1O, UQ1P, UQ1Q, UQ1R, UQ1S, UQ1T, UQ1U, UQ1V, UQ1W, UQ1X, UQ1Y, UQ1Z, UQ2A, UQ2B, UQ2C, UQ2D, UQ2E, UQ2F, UQ2G, UQ2H, UQ2I, UQ2J, UQ2K, UQ2L, UQ2M, UQ2N, UQ2O, UQ2P, UQ2Q, UQ2R, UQ2S, UQ2T, UQ2U, UQ2V, UQ2W, UQ2X, UQ2Y, UQ2Z, UQ3A, UQ3B, UQ3C, UQ3D, UQ3E, UQ3F, UQ3G, UQ3H, UQ3I, UQ3J, UQ3K, UQ3L, UQ3M, UQ3N, UQ3O, UQ3P, UQ3Q, UQ3R, UQ3S, UQ3T, UQ3U, UQ3V, UQ3W, 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UQ0N, UQ0O, UQ0P, UQ0Q, UQ0R, UQ0S, UQ0T, UQ0U, UQ0V, UQ0W, UQ0X, UQ0Y, UQ0Z, UQ1A, UQ1B, UQ1C, UQ1D, UQ1E, UQ1F, UQ1G, UQ1H, UQ1I, UQ1J, UQ1K, UQ1L, UQ1M, UQ1N, UQ1O, UQ1P, UQ1Q, UQ1R, UQ1S, UQ1T, UQ1U, UQ1V, UQ1W, UQ1X, UQ1Y, UQ1Z, UQ2A, UQ2B, UQ2C, UQ2D, UQ2E, UQ2F, UQ2G, UQ2H, UQ2I, UQ2J, UQ2K, UQ2L, UQ2M, UQ2N, UQ2O, UQ2P, UQ2Q, UQ2R, UQ2S, UQ2T, UQ2U, UQ2V, UQ2W, UQ2X, UQ2Y,

FEDERAL, QSL, and DIVISIONAL NOTES

FEDERAL

"LIMITED" A.O.C.P.

Mention was made in these columns in the August, 1953, issue of the proposed introduction of a Technician License, and the probable terms of this license was expressed.

The Postmaster-General's Department has been asked to list this as a "Limited A.O.C.P." this being mentioned so that readers and members will not be confused by the use of a different expression to denote the new form of license.

The Department now confirms that candidates will be required to complete the same examination, with the exception of the Morse code sending and receiving examination, as that required for the normal Amateur Operators' Certificate of Proficiency.

It is confirmed also, where application is made for name, that a Limited certificate will be granted to those candidates who passed the technical and regulations sections of A.O.C.P. examinations held since the 1st January, 1953.

Holders of the "Limited" certificate will, upon payment of the requisite fee, be permitted to obtain the normal A.O.C.P. by successfully completing the relative Morse code test, and in this regard no time limit will be implemented. This means simply that the holder of a "Limited" certificate can sit for his Morse code any time he feels confident to pass the necessary test.

"Limited" certificate holders will be limited to operation on the bands of 144 Mc. and beyond.

SUCCESSFUL A.O.C.P. CANDIDATES

The following is a list of candidates who were successful at the examination for the Amateur Operator's Certificate of Proficiency held on 14th July, 1953:-

New South Wales

McDonald, K. E., 5 Lombard St., Balgawah, Sydney.

Cooper, A., 178a Jessie Street, Armidale.

Victoria

Hallyburton, J. R., Stanford.

Woolley, A. M., 251 Glenferrie Rd., Malvern.

Charles, H. A., 227 Dandenong Rd., Windsor, S.I.

Falconer, W. J., 31 Kilbride Rd., Canterbury, N.Y.

Queensland

Tow, R. C., 1 Brook Street, Bnoah.

Cox, L. H., Nutgrove, Cooyar Lane, via Toowoomba.

Ahnfeldt, O. V., 34 Railway Avenue, Mount Isa.

South Australia

Postler, K., 508 Moscat Street, Peterborough.

Judd, C. H., 215 Goodwood Rd., Colonel Light Gardens.

Bairden, K. G., 34 Lindsay Ave., Woodlands Park.

Western Australia

Jacobs, W. W., 134 London St., Mt. Hawthorn.

Tasmania

Hurburgh, M. H. B., 23 Clarke Ave., Battery Point, Hobart.

USE OF HIGH POWERED COMPONENTS

The Postmaster-General's Department has recently advised that its Radio Inspectors throughout the Commonwealth have been reminded of the policy in connection with the use by Amateurs of a combination of high-powered components.

It is confirmed that the Department will not object to the use of such combined components so long as the stage of the transmitter is so connected that the licensed input power of 100 watts cannot be exceeded without a major change to the equipment providing such a change to the equipment, including, but not limited to, aerial leading facilities.

The Department has standing a most rational view of this long standing "thorn-in-the-side of the transmitting Amateur," and it is now the prerogative of every licensed Amateur to operate his equipment that the world has been circumscribed under any circumstances be exceeded.

LICENSE CHARGES

A summary of the license charges made by different Administrations against the issuance of transmitting facilities to Amateurs in the respective countries of the I.A.R.U. has been circulated to all Amateur Societies by the Radio Society of Great Britain. Details of the fees charged were not received by the R.S.G.B. from Iceland, Northern Rhodesia, Portugal, Sweden and Yugoslavia.

A perusal of the various charges shows Australia as being in a most lenient position compared with the States where the Amateur licenses are charged in other countries. For the information of members, a copy of the summary will be sent out to this Division, and any interested parties can obtain relevant information from his Divisional Federal Councillor or members of Council.

REGION ONE CONGRESS

The Union Schweiz Kurzwellen Amateurs were hosts to Amateurs from 13 countries at an I.A.R.U. Region One Congress held at Lausanne, Switzerland, from 14th-17th May. Delegates from Belgium, Denmark, Finland, France, Germany, Great Britain, Italy, Luxembourg, Netherlands, Sweden, Switzerland and Yugoslavia attended the meeting. No delegates were sent from Britain, Congo, French Morocco, Ireland, Norway, Portugal, or South Africa, but these countries were duly represented by other societies.

FLOODS IN EUROPE

Radio Amateurs were credited with saving thousands of lives during the disastrous floods that ravaged parts of the Netherlands in late January and early February. According to newspaper accounts, the Netherlands Amateurs spontaneously took the initiative in establishing emergency communications. V.E.R.O.N. headquarters in The Hague reported that the organization which operated continuously for 100 hours, and many Amateurs, operating from boats, automobiles, and on foot, were too busy handling emergency traffic to consider sleep or changes of clothing.

PA Amateurs proved themselves more skilled in their operating than the military operators who were amazed at their efficiency. It is estimated that about 40 Netherlands Amateurs took an active part during the emergency while over 100 others stood by on emergency frequencies to provide aid when needed.

Frequencies between 3675-3725 Kc. were in use by the emergency net, and Amateurs in other countries co-operated with the G.P. Amateurs in keeping these frequencies clear of all but emergency communications.

At the end of the emergency, the Director of the P.T.T. closed the emergency net operation with a message commending the Amateurs for

their magnificent service and suggesting the possibility of establishing a permanent emergency organization and net under their auspices.

Parts of Great Britain also suffered extensive flooding from the sea, and the waters that inundated the Netherlands. British Amateurs showed great alertness and courage in the handling of emergency communications even though the country had no organized Amateur emergency system at the time. Amateurs in the British Isles have now expressed a desire to organize an emergency corps.

AWARDS

Two awards recently offered by the R.E.P. are the Diplomas do Mundo Portugues and the Iremar and Continental Portugal Award (D.P.C.I.). Rules are as follows:-

Diploma do Mundo Portugues (D.M.P.)

The D.M.P. award is available to all Amateurs who are members of the I.A.R.U. societies and who can submit satisfactory evidence of having worked at least one station in each of the following Portuguese countries or possessions: Continental Portugal, Azores, Madeira, Cape Verde, Portuguese Guinea or St. Tomé and Príncipe, the islands of the Atlantic, Gueine India, Macau and Portuguese Timor. All contacts must have been made after 29th July, 1945, and the list of stations worked should be forwarded to the R.E.P. for examination. The R.E.P. will pay all expenses connected with the return of QSLs and certificates.

Iremar and Continental Portugal Award (D.P.C.I.)

The D.P.C.I. is available to all Amateurs who are members of I.A.R.U. societies and who submit proof of having contacted 50 different stations in the various continental Portuguese provinces. Azores and Madeira. Each province has been assigned a minimum number of contacts as follows:-

Tras-os-montes e Alto Douro	1	Extremadura	... 10
Alentejo	1	Alentejo	...
Alentejo	1	Alentejo	...
Alentejo	1	Alentejo	...
Alentejo	1	Alentejo	...
Alentejo	1	Alentejo	...
Alentejo	1	Alentejo	...
Alentejo	1	Alentejo	...
Alentejo	1	Alentejo	...
Alentejo	1	Alentejo	...

All frequencies designated for Amateur use by Atlantic City agreement may be used, and telegraph or telephone calls are permitted. Cards may be mailed to the R.E.P. for checking, but a list authenticated by the applicant's A.R.L. Association and mailed to the R.E.P. will be acceptable. QSL cards should confirm contacts after 1st January, 1953, and should be free from erasures and alterations.

Certificado del Mediterraneo

The A.R.L. has instituted an attractive new award, the Certificado del Mediterraneo. To be eligible for an Amateur use of the R.E.P. possible 251 countries bordering the Mediterranean Sea plus 30 provinces of the Italian peninsula contacted by radio or telegraph or telephone. June, 1953, and either telegraph or telephone, or both, may be used. The 52 QSL cards must be accompanied by a letter stating date and time, band and type of emission for each contact. In addition, the applicant must attest that the cards are signed by registered operators governing radio operation in his country. Minimum signal reports allowed at 257 338 for c.w. and 25 33 for phone. Applicants who are members of I.A.R.U. societies may send their cards to the society for processing, thus avoiding the necessity of mailing QSLs out of the country. Applicants who are not affiliated with I.A.R.U. societies should send their applications to Radio Club Societa Italiana, Sestieri, Casella Postale 250, Torino, Italy.

FEDERAL QSL BUREAU

RAY JONES, VERAJ MANAGER

One of the real old timers popped in a letter the other day. Signed was from Vic Chennell, VK3TH. Says I wouldn't recognize him now, says he had heard and having also heard that he has laid it on a bit thick, he confidently he is approaching the degree of maturity where neither of the aforementioned ornaments look out of place. Good luck, Vic.

Phila, FK8AC, writes that Andre Baillet, FWA6A, who was installed on Wallis Island for the past two years, has returned to France.

UCC

for extreme climatic variations.

U.C.C. "METALPACK"

It's the Super-Tropical capacitor made to withstand extreme temperature variations from -40°C to +150°C. Check these big features: • Solid foil and paper assembly, non-inductive • Rigid outer aluminum casing • Non-hygroscopic processing for high performance • Full hermetic rubber sealing to tubes and rivets • 5 pin wire connection for maximum contact to element, brought through rivet and soldered.

Conforms to Inter-Services Specification RSC311.

UCC CAPACITORS

FOR EVERY APPLICATION

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432 Panchsheel Road, Enfield N.5.W. PL 351

MARINE TYPE MRT12 TRANSCEIVER

Designed for Small Ship operation. May also be used for Amateur Bushfire Work, etc. Very reasonably priced. Full details and descriptive leaflet from Firms handling Bright Star Crystals or direct

Limited number Taylor Tubes.
TZ20s, £2/10/- each;
TB35s, £6/10/- each.

Transmitters altered for Bush Fire and Fishing Boat Work.

CRYSTALS, as illustrated, 40 or 80 mc, AT or BT cut. Accuracy 0.02% of your specified frequency, £2/12/6 each



20 metre Zero
Drift £5 each.
Large, 40 or 80
mc unmounted,
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STOP PRESS.—Next issue we will introduce the Canberra gang who have a splendid club in action under the Presidency of our old 28 Mc. friend, Norm 2ANR. Jim 2YC spent the weekend of 3th and 8th Sept. there. From now on, never let him tell you he doesn't get air sick, on the climax of days, what did those chaps put in his food, I wonder Peggy you should have stayed at home. hi!

NORTHERN SUBURBS ZONE

New Zone Correspondent: E. Gabriel, VK2AVG,
38 Narcoona Road, Northbridge

It is quite some time since any news has come from these parts, fellows, so all interesting whispers, scandal, brickbats and bouquets should be addressed to the above, and I will do my best to sort it out.

The recent R.D. Contest brought many of the boys out of hiding, new and interesting antennae appeared on the horizon, and old and new "northerners" added their signals to the general QRM. The best way to start a new series of notes from this zone, in my opinion, is to introduce a few of its members. So here goes! Among the newer signals to be heard are George 2VM, Frank 2ARA, Ralph 2ARO, Norm 2AHS, Bob 2ARI, Tom 2OR, Peter 2AQC, Hec 2ACI, Vic 2AWN, Harry 2AKS, Jim 2LY, Brian 2AND, Jack 2JN, plus many old-timers.

Harry 2AHZ ("The Mayor of Church Point") is still going strong. Alan 2FHR is settling in at his new QTH at Beauty Point and puts in a good signal here. Rec 2ACI does a lot of listening but can always be enticed on by the mention of mushrooms! Norm 2AHS may also be heard mobile in the M.V. "Coramba" on 40 mks. Frank 2JAP puts out a good signal from Palm Beach now he has got his new beam working. Words of wisdom are again being heard from Lindfield now that Bert 2AGW has his new rig ticking over.

Many fellows on this side are members of the Night Owls' Club on 20 mx, so if anyone is interested, they are invited to v.f.o. in for a yarn, and also to work some of this elusive DX, ably assisted by Night Owls' President, Herbie SFA and his "Fantastic Antenna." Would appreciate farns for the next some notes, so please contact me, chapel

SOUTH WESTERN ZONE

News for a month from the South Western Zone is scarce, stations most active being 1BQ, 1PN, 1RS, 2APP and 3AQE. The zone seemed to be well represented in the RD Contest, so don't forget to send in your logs. The zone reg-
chew at 1930 hours on 80 mhz on Wednesday evenings is still on, chaps, and we would like to hear from you. Regular customers are 1BQ, 1RS and 1PN. What about some new blood?

Don't forget to keep in mind the South Western Zone Convention, 31st October and 1st November at Wagga. Plans are going ahead, and we hope to have our programmes in the very near future. These will be dispatched to the other Zones.

Be seeing you on 80 m.m. at 1830 hours on Wednesday evenings. What about it?

VICTORIA

Owing to school holidays, it was not possible to use the facilities of the Melbourne Technical College during the first week of September, consequently the meeting night was advanced to the 28th August. No doubt this change was the cause of the drop in attendance, only approx 50 being present to hear Bud 3ABP speak on his flight to Macquarie Island.

Another ED Contest has now passed and results are eagerly awaited. There appeared to be plenty of signals about during that particular week-end, but where the devil do all those blokes get to during the rest of the year. A lot of VKA calls were noticeable by their absence. What about it next year chaps, come on, if only for the minimum six contacts.

ANNUAL DINNER

This event is scheduled for 14th November. The cost is 15/ per head plus what you drink. The location is the Junction Hotel, St. Kilda. A bumper roll-up is expected, so book early.

QSL BUREAU

The Bureau is becoming cluttered with unclaimed cards for non members. These cards were sent to the Bureau in good faith, and the cardholder was requested to make a return to see that they find their destination. Therefore, the call signs of those for whom cards are held are listed below. If you know any of them, please ask them to arrange to collect their cards, at the same time try to get their names on membership for those who are not.

ME, LR, LJ, KP, KF, GN, FM, PL, RH, DZ, DD, DA, AC, CK, CG, CC, CD, BJ, AF, AD, AI, AM, AO, RX, HF, KY, TZ, GX, QD, RY,

SO, TW, UD, UP, UQ, UW, VC, VD, VI, VR,
VV, WA, WB, WJ, WK, WL, WS, XR, XV,
XZ, AYT, AWY, AYC, AYB, AWV, AWU,
AWP, AWJ, AWH, AVK, ATS, ATM, ASX,
ASW, ART, AQL, AQR, AON, AOM, AMA,
AMP, AMS, ANC, AKL, AIR, AHX, AHW,
AGW, AGJ, AGI, AGJ, AGA, AEG, AEF, ADX,
ADR, ADM, ADH

Questions are again being asked about the proposed 40 mx Scramble. This matter has been referred to Council for a decision and when reached the answer will be published.

TRANSMITTER HUNT

Inclement weather wiped out the August Hunt, hence no write up. Whilst on this subject, a new style Hunt is mooted, namely using three tx's in different locations. If you don't find the first in the allotted time, go look for the second, and so on. Sounds like a Redex Reliability Trial and SLN could really get lost. Or would you get there with Tri-angulation, Len?

These Hunts also came up for discussion at the midnight session in Collins Street, when it was suggested that with the summer months approaching, they be made a picnic affair. The XYLs and Kids would get more pleasure from them (not yours Len—sit down) and the OMs could take along their portable gear and make a field day of it. What do you think of it. Let your opinion be known.

When the discussion on publicity for Amateur Radio generally was discussed at the last meeting, somebody suggested handouts to the press. Apparently this is not necessary for shortly after one Melbourne daily gave it a page three write-up. Word for word from the VK5 notes. Wouldn't it! There'll be no holding that guy now.

Seen in Melbourne recently: 3IKR, 3WQ, 3ACN and 8KO. 8KO was passing through on his way home after a spot of service in VK1.

3FO now recovering from the wog 3ZS on the air three nights running! 3SX running a lost property office. Know a chap looking for missing crystals—better check what you have.

Rus. 3ATP moving into Ashburton; when he goes the number of poles and barns in the area he will sell out cheaply or give the game away.

2AHC came on with a mighty splash—nine
watts, all VK and ZL districts in nine days.
And no more in the game until the last. And
the mighty exhibition. My brother, the VK
is a mighty versatile type. Was an airline pilot
he'd be took to dentistry. Sorry Harold, but
you could become a better backstab than SMD.
Had a visit from ZLARB. Pete will be here
for a sizeable chunk of the time. The U.S.
Department will give him a VK3 call, the Navy
won't play ball. Pete would like to come to
one of the meetings, but can only come to
down during week-ends. Have arranged to take
him on a trip to the States. Give him a chance to
meet on any of the ends.

Very pleased to report that Tom JHX also known as "Dear Editor," is making good progress. He is still in hospital, and will be for a while yet. Confidentially Tom, did SVZ give you the gen on "How to win nurses and influence them?" Alright, alright, I'll send you another carton of Ravens.

The next meeting of the Division will be held on 10 October at the usual place. The agenda item is "Hints and Kinks." Please help to make the evening a success by bringing along any hints and kinks or pet idea that will be of interest to the gang. Now the weather is picking up, better attendance figures should be possible.

NORTH EASTERN ZONE

Howard 3YV was reported to have motored down to Benalla one recent Sunday afternoon to see Ken 3KR who is having a quiet time on 20 mcs after having his DX C.C. confirmed. Graeme OM Jim 3XZ took up to Henry 3SR on 40 mcs and was beruffled at the noise level that troubles Henry. Gordon 3KU is quiet when not on 40 mcs. Jack 3WQ is planning a new wavemeter and was collecting useful data from Hans 3AHJ while in Melbourne. Doug 3J was waiting on some new transformers for his rig. The 3000 ft. tower is not in the north of Chas 3ACW and his history research, or of Alan 3SS and that new tx.

Jack 3FF will have to try a horse for going round his sheep in wet weather. Hugh 3AHF is getting along quietly and Syd 3CI must be getting the DX on 15 mx now. Tom 3TS has not been evident if he has returned from VK4, but George 3DG, Les 3ALE, and Frank 3ZU were reported heard in the R.D. Contest.

Murray 3HZ received quite a mention in a supplement of a leading Melbourne daily and his interest in 8 mx was highlighted. Alex 3AT is fairly quiet, as Rex 3UR is fairly busy, no doubt helping the XYL amongst other things.

Des SCO must be building that shack before coming on the air much, and nothing is available on Stan JAGT or the elusive Johnny JACK. Keith EJC was sleeping off a heavy Saturday at last advice [week!!!].

EASTERN ZONE

Ossie JARK and Leo SARG are still silent. Ossie because of burnt-out power transformers and Leo because of an extensive re-building of his engine. Keith SSS has been out through VK2. Keith SSS has gone off again, this time on a fishing trip. I think I'll start sending out a fishing lure again. I'm proud of his 39 contacts in the R.D. Contest. Jim DX is looking for contacts on 5 mhz these days. I'm sure he'll find them again. I'm also his pet baby. Al! McCrell! I'll try to pick up enough courage to have a go at the next exam for the Technician's License. Graham is still working on his car. At the time now, he is building a service station on the Prince's Highway. Best of luck Graham. As for me, I'm still working on my car. These days, doesn't get much time to go on the air. Graham SGO is still very busy down

The Annual Meeting of the Salt Sub-Branch was held at the home of Graham 3QZ and an excellent number attended, in fact there were quite a few more than men at the meeting of the State Conventions. Oats JA1K occupied the chair and after thanking everyone for their presence, proceeded to give a very extensive report on the year's activities. Having said that part of the business over, the election of office-bearers was proceeded with. Al McKrell was proposed for president, but as he was in the Lindsay 3H could not persuade anybody to relieve him of his duties as Secretary Keith 3SG undertook the difficult task of arranging the program and the meeting was adjourned. Keith 3SG agreed to carry on the job of correspondent.

When the official part of the meeting had been completed, Al threw the meeting open for general discussion. A lot of rag-swinging was indulged in where each person had a chance to JBB, Arthur JAB, Fred JAF, Reg JVL, Owen JUS, Jim JDI, Keith 3SG, David 3QZ, Oats JA1K, and the 3QZ associates. Stan Bax 3QZ and McKrell and quite a few others. The 3QZ crowd went away as well as several XYLs all meet. Jim answered many questions for those interested

Hope to see you on the 24th
October at the Eastern Zone Co.

SOUTH WESTERN ZONE

Just a reminder the Zone Convention is being held at Colac on the 6th and 7th of November. An invitation is extended to all interested with the certainty of a good time. JAKC and JAGV are looking after the show.

Zone hook-ups: are still getting from ten to fourteen starters each Sunday at 1000 hours. The zone hook-up for most of the month has been NV, 3AKR and JARI, who live in Warrnambool for two weeks each year. The zone hook-up for the last week of the "du wog" but on the mend now 3AGD paid a flying visit to Bill, stopped about 10 seconds to get some beer and then went on missing his way home. No one was there to greet him. Nothing heard of any other Glenelg boys. The Hamilton lads are getting very close. 3BV and 3TA knocking over the A's and 3QN painting their cars. 3BV raised very good money by the method, string and stone. R.D. Contest well gone, and members all did well. 3AC talking about going to the States. Two new antennas has a good modulator now, also new antenna. Started getting 144 Mr. Gear in order and will be getting 144 Mr. Gear before these notes are read.

Q. 4. *Explain the following:*

QUEENSLAND

Members of this Division let us down at the August meeting and, apart from general discussion on the R.D. Contest and the next local point of interest, the R.D. Contest, the meeting with owing to the lack of a quorum. This seems to me to be a sorry state of affairs, for an organisation is only as strong as the members make it. If they are not attending the meetings, soon there will be no organisation and then, where will we tell our XYLs we are going when we want a night out? I know, to some extent, that the XYLs are not attending the heart to pul in so much extra time and thought, and then receive no support from the members.

The only strange face at the meeting that I noticed was Frank 42M who met most of those present. The evening was taken up with some fine films of the Barrier Reef, shown by Mac, who made an enjoyable night of it. Most one feel like giving this reward some and going game fishing on the Reef. Thanks Mac for your time and energy put into this fine show.

By my observations, the VK4 Division gave the R.D. Contest very good support, though

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had an enjoyable time renewing friendships made on the air at various times. Planned to see you OM, Jack Fowler, an associate member with the S.W. is at present in hospital with a little eye trouble and he hopes that Jack is now OK. I was a little surprised to know that Jack was being bothered with his eyes, how it had been so long. I would have been quite prepared, judging by the eavesdropping that Jack does on 3mx when the local boys are out on the air.

Everybody wants to get into the act! Each year about this time I release to an anxiously waiting world the news that Frank is again in Ballarat and is about to encounter with the usual party of YLA to compete at the South Street competitions. Imagine my feelings when I read that the V.K.S. Bureau section would have been there last month and found that a gentleman, and I use that term with some hesitation, by the name of Ray Jones, ERZ, had been there. Because an unkind word would have been continually being hurled at me by members of other Divisions. The VKS scribe hurled insults, because an unkind word would have been continually being hurled at me by members of other Divisions. The VKS scribe hurled insults, because an unkind word would have been continually being hurled at me by members of other Divisions. The VKS scribe hurled insults, because an unkind word would have been continually being hurled at me by members of other Divisions.

Brice ERZ is at the moment walking on top of the world as he became the proud father of this month's a bonny bouncing boy. This makes a pigeon-hole for the VKS scribe. I can assure you from him for the next few days in case it is contagious.

I close the notes this month on a very optimistic note. I received a cutting from VKS magazine which definitely confirms the news that I have had secondhand regarding Tom 3MX. When I was over that way recently he told me that he would be in the hospital for a while. I was lately and hoped that they would be able to help him. I admit that he seemed optimistic, but I think that he was just trying to cheer himself up. I have heard that he has been in the hospital for a while, but I have not heard anything more. I hope that he will be able to get out of hospital in due time and that he will be able to help me. I hope that he will be able to get out of hospital in due time and that he will be able to help me.

Some news struck me. Here I have been bowing and scraping, crawling and apologizing, backing and filling, to none other than the VKS scribe. I have been told that I should have been waiting in fear and trembling of me. Why? Because as VKS Sub-Editor, he is answerable to none other than the VKS scribe. I have been told that I should have been waiting in fear and trembling of me. Why? Because as VKS Sub-Editor, he is answerable to none other than the VKS scribe. I have been told that I should have been waiting in fear and trembling of me. Why? Because as VKS Sub-Editor, he is answerable to none other than the VKS scribe.

WESTERN AUSTRALIA

The results of the 40 mc Scramble mentioned in last month's notes resulted in a lot of fun for all concerned. It might be better to hold this Contest towards the summer months so that communication within the State can be held both the morning and the afternoon periods.

From logs received by the Secretary for the R.D. Contest, the VKS effort was equal to last year. In fact, this appears in print the results should be known. The writer in the year before last Contest worked six stations in Western Australia. This year, I worked 14. This year with 50 watts, it was a struggle to get those six contacts in under two hours. Either of two causes can be attributed—conditions were not as good as last year, or there were many more stations on the air, and the unfruitful calls were more frequent. I think this last reason is the correct one.

SWZ, from Geraldton, was a visitor to the City during the latter part of August, as was 6KJ, from Albany. ERK took the opportunity, during the holidays to visit Perth. He hails from Naremburn. As the a.c. electricity supply is spreading throughout the country, it is not surprising that he has decided to believe that it is at present stops just two days away from his QTH. The wire gang should have pulled a few more out of the mass and that would enable him to hitch to the supply.

In the City, the long search for a windmill tower for the VKS has been successful. It has been found that ERU and 6WT, who live two doors away from each other, will never be able to erect

a 40 mc rotary beam each, otherwise they might collide in mid-air. There is one advantage even now, that is, one catwalk between the two would suffice. It is hoped that they will be ready to frans their rotary beam rotas with prospects of more DX.

The next general meeting will have as lecturer, 6HR. The title is "The Future of the I'm not sure what it has to do with erecting masts, or concerns motor generators.

6BO, to whose poor results I made reference in last issue, on his new 40 mc aerial attached to a nicely painted mast, has carried out this. This achievement is attributed to the fact that it is now completed with twin feeder leads—results are being awaited.

The Perth City Council have a by-law drafted, which is now ready to go to Parliament, to make a licence charge of 1/- per foot for all masts and any part of buildings (other than the main building or smaller ones) within the area of the City Council. Seems to be slipping in a smart con before the introduction of television. It's a bit rough on those Flame who, through lack of space in the backyard, have put up 25 foot masts against the chimney in the rear of the house. The Council are now confronted with an official carrying a tape measure or an altimeter to ascertain how much masts are over the limit. The Council are, of course, not to be taken without some action by the VKS Division.

The Annual Dinner recently held showed a profit of over £5.

TASMANIA

The rather unpleasant weather was perhaps the reason why the September meeting was not so well attended as usual. There was not much business for the meeting and by 8.30 p.m. the lecture was under way. The evening's lecture was by Tom Allen, TAL, who told of the various virtues and vices of the TRFD aerial. TRFD, we were told, stands for terminated tilted folded dipole, and Tom stood up well under the barrage of questions fired at him by the audience. Chief questioner was Joe TBJ who was getting a bit of his own back and seemed to be very worried about the 35 per cent. dissipation of power in the aerial series. The theory was advanced that the aerial gets its chief qualities from the temperature inversion caused by the heating of the antenna. It was suggested there must be some other reason for the results that Tom claims for the aerial. Anyway, it seems that it is a good job as comfort all-hand sky-wire, and the remarks of the lecturer and the lectured caused much amusement—there should be more of it. The usual brew and ragchew after the meeting rounded off quite a pleasant evening.

The first meeting of the Exhibition Committee was held at the 70M residence on Friday, 4th, and the wheels were set in motion for the building of a rig for the coming Exhibition. The rig decided on is a p.p. 807 job with an all-band hand and handwired exciter unit, modulated by the usual pair of 807s and mounted on a 8 ft. rack. This rig will eventually become the VKS rig for the local contest, and we are depending mainly on donations from members for parts. The parts mainly needed are power supply, lifts and pieces and any other pieces which come to mind. A 100 watt modulated rig, so if you would like to make a donation towards it, as some have already done. The Committee are very happy and the Division would be saved some expense. What about it boys?

Because the Exhibition is being held in such a hurry, the R.D. Contest is being self-extended to the Tramway workshops. It is proposed to have a receiving centre somewhere quieter and to tune the rx remotely from the Hall per v.h.t. link (it is a long way to the workshop) to show the public what goes on in various parts of the tx and antique radio gear originally used by the late TAJR in the early Tasmanian radio days will be exhibited.

Some news this month from the Queensland area, where my spy has been snooping lately. ERK has been in the City for a self-extended final on the West Coast, but in spite of having worked into VKJ and VKJ and would have made ZL only some VKJ came on the same frequency. The VKJ was a bit of a nuisance, but into VKJ also and after such success, has decided to try 144 Mc amongst the mountains and valleys of the West Coast. He has found such a hole, I mean EN Z such a hole, he thinks it may be difficult to get a v.h.t. signal out of, and proposes to make some measurements on the characteristic impedance of the wire lines with a view to using them as feeders! TCF, after a long quiet, came on for the R.D. Contest and he was the quota before the power transformer went up in smoke—must be the Queensland damp Chas.

Award for the magnificent effort for the month goes to Ian 7KB for his work in the R.D. Contest—if we don't get the trophy back this time, it won't be your fault Ian. Good work!

NORTH WESTERN ZONE

Our Annual Meeting was held on the 25th August at the home of the friend and associate, Mr. K. Hancock, who, with the aid of his XYL and a few friends, put on a very tasty supper after the meeting. The meeting was held at 8.15 pm by Bob T. Long, A.M.I.R.E., on the application of remote control of our local broadcast station, after which an election of officers was held. The only change was that of President, which was filled by TAJR.

Our thanks go to 7KB who has done a power of work for this zone, has been President for the past few years, and has had us through many a crisis.

A discussion took place on the building of mobile gear for a proposed emergency network in this zone. Members at the meeting numbered 12, and we were pleased to see TAJR and TDR present, who live in outlying districts. An apology was received from Eric TDM who recently had his foot burnt in caustic; we hope you are soon better again Eric.

NORTHERN ZONE

A Sunday morning or two ago, after hearing 7RK and TAJM making a bid to meet at the 70M, we had a bit of a shakedown. TAJM, as the single interesting battle (not electronic) before them having been fully examined and tested, was being discredited—after such a show life too! Whilst their own radio station, it will even send perfect dots with the foot! (Cue for TFM to pass the appropriate remark in his boss's hearing). Incidentally, Ray introduced a new innovation to our monthly meeting by pounding the keys (ivory) of the typewriter before business began—must have more of it!

7XW is still with us. A little winded though from dodging galeforce blasts while making holes for new masts, his secretary has been seen. Was unable to be amongst the gang who admired the 83s, 81s and 807s in the new b.c. to be built in his boss's hearing.

Col TLE, after being laid low with the gout, or some other gentlemanly complaint, is, we are happy to hear, up and about again. Gordon 7DM has been busy with his new car. Gordon's XYL will probably be considering radio as a hobby also, seeing that he has been adding other radio devotees. TBQ is carefully nursing a new 6Q60/46. Last meeting Len brought in a new 6Q60/46. Last meeting Len brought in a new 6Q60/46. Last meeting Len brought in a new 6Q60/46.

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OFFER WANTED.—R.C.A. AR8D Comm. Receiver, 5 meter, 100 Kc. marker xtal; sell Taylor Signal Gen. 100 Kc.—23 Mc., as new, £16; University Signal Tracer, as new, £12; Transceiver, 3-7 Mc. with pwr. supply inc. generator, £12; VCT Valve and Circuit Tester, £20; Xtals, Billey variable 7169 Kc. £2; 1000 Kc. 30/-; 50330 Mc. 30/-; pr. new 809s, £2 each; Radionet Designer's Handbook, new, £2. R. Guthrie, Box 73, Port Pirie, South Aust.

SELL.—Dynamord Microphone, model 42M, £8; Decca F.F.F.R. Player Unit with mag. sapphire head, £6; Garrard D15 Player Unit less pick-up, £2; Dynamic Speakers, 5" and 8" 15/- each, 12" £1; Valves 12v. 6l, 4/- each; also coils I.P.s., etc. C. King, Albert Street, Corowa, N.S.W.

SELL.—TR1196 Transceiver in new condition, covers 80 to 40, 12v. operation, complete with mike, phones, plugs, etc., bargain at £8. R. Wilson, 11 Cunningham St., Burnie, Tas.

Homecrafts

★ RADIO ★ BARGAINS

NEW TAPE DECK



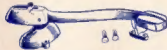
- ★ Weight 7½ lb.
- ★ High fidelity 50 to 9,000 c.p.s.
- ★ One hour playing for each spool.
- ★ Self-contained motor.
- ★ Electronic erase head fitted.
- ★ Built-in vernier control.
- ★ Fast forward and rewind.

Price complete £40

Plus 12½ Sales Tax

MODEL 150 PICK-UP

World famous Goldring Model 150 Pick-up. Brand new with two sapphires for standard or microgroove recordings. Reduced from £7/10/8 to 39/6. Limited quantity.



★ KARSET KIT

Car Radio Kit, as described in "Radio and Hobbies," March, 1952, issue. Karset complete to the last nut and bolt, including 6 in. Rola Speaker, 22 Gns.

Also 1953 model, as illustrated in "Radio & Hobbies," April, 1953, 20 Gns.

BARGAIN KEROSENE STOVES



Latest type. No pressure required—absolutely safe. Boils kettle of water in twelve minutes.

Price only—
59/6

CONVERT YOUR EXISTING 78 R.P.M. RECORD PLAYER TO "MICROGROOVE"

Easy to install. Pick-up has interchangeable Heads. Cantilever type Sapphire Stylus. Excellent frequency response. Even speed reduction.



Price as illustrated £6/19/6



Q-PLUS OSCILLATOR

★ Outstanding Value

With Modulated 455Kc. Note. Accurate I.F. alignment.

Price only 32/9

RECORDING ENTHUSIASTS



Trutrak
Cutting
Head.
20/-

BUILD IT YOURSELF

So Simple a boy can do it.

One Valve

RADIO KIT

reduced from
£6/8/- to

59/6

AERIAL COIL BARGAIN

★ Unshielded Aerial and Oscillator Coils, 455 Kc.

4/11 each

★ Standard I.F. Transformers, 455 Kc.

7/11 each

STOP PRESS BARGAINS

- ★ 20,000 ohm 40 watt Resistors ... 5/11
- ★ 6K7G Valve, direct replacement for 6U7G ... 7/11
- ★ 12 volt 500 watt Generators. Suitable for home lighting. Cut to only ... £4/19/6
- ★ 30 Henry 100 Ma. Power Chokes. Only ... 12/11
- ★ Type 913 1" Cathode Ray Tube, 39/6
- ★ 12 volt Vibrators ... 7/11
- ★ Five Pole W/Switch ... 6/11
- ★ 0-20 volt Moving Coil Meters, 14/11
- ★ Bargain imported Record Player, English 3-speed Player, 33, 45 and 78 r.p.m. with high fidelity crystal pick-up for microgroove or standard recordings. Cut to only ... £10/19/6
- ★ Pick-ups for long-playing or standard Records ... 59/6
- ★ Type 7C7 Valves, brand new ... 7/6
- ★ Acorn Tubes, brand new, type 954 and 955. Cut to only ... 7/11
- ★ Amplifier Cabinets, 10w. size ... 55/-
- ★ Amplifier Cabinets, 25w. size ... 69/6



BARGAIN

Electro Gramo Unit. 78 r.p.m. 230v. Synchronous Turntable, with high fidelity magnetic Pick-up. Automatic stop.

Cut to only 4 Guineas

COUNTRY & INTERSTATE CLIENTS PLEASE ADD FREIGHT OR POSTAGE

BARGAIN

Bakelite Mantel Cabinets
Small 8/11. Large 9/11

SPEAKER BARGAIN

Famous Make

High Fidelity, well-known English make, twin cone 12 inch diameter, 15 watt,
£18/18/-

290 LONSDALE STREET, MELBOURNE

Central 4311



of Milan, Italy

PRESENTS AN OUTSTANDING NEW MICROPHONE

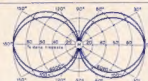
The 416 Double Ribbon Velocity Microphone



Left: Cat. 416 Double Ribbon Microphone.

Above: Polar diagram response curve of Cat. 416.

Below: Characteristic response graph of Cat. 416.



The Geloso Ribbon Microphone is an outstanding development in as much as a double ribbon is employed for high output and high quality, faithful reproduction.

Where true musical reproduction is required, the Geloso double Ribbon Microphone provides the answer at amazingly low cost.

Normally, Ribbon Microphones are very large and heavy physically, but these disadvantages have been overcome by Geloso through the use of twin ribbons in the magnetic field. Finish and general workmanship of the 416 series is really excellent.

Output impedance is normally 250 ohms, but this can be raised to grid impedance (150,000 ohms) if desired by the use of a line transformer (Cat. TL250GR).

The characteristic response of the 416 Microphone is 30—13,000 cycles (see graph at left). The polar diagram response curve is shown at the left.

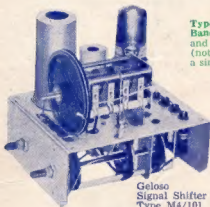
Catalogue 416.—Double Ribbon Microphone without base, but with switch, four yards of screened low-loss cable, and TL250GR Line Transformer **£18/15/-**

GELOSO SIGNAL SHIFTER AND CALIBRATED DIAL

Type M4/101: A very stable five-band three-tube V.F.O. unit, fully wired and tested. **Bands:** 3.5—4, 7—7.45, 14—14.4, 21—21.6, 28—29.8 Megacycles. **Dial:** Fully calibrated and band spread over 180 degrees. **Tubes:** 6J5 oscillator, 6AU6 isolator, 6V6 output (not supplied). **Output:** Tuned on each band, giving at least 3.5 Ma. grid current to a single 807 on all bands. **Power Supplies** (not supplied with unit): 400v. at 32—54 Ma. **Price** (including Sales Tax): **£10/4/9**

- Instant change of frequency on any band by coil switching.
- Controllable output over entire tuning range.
- Single control full band spread on each band.
- Capacitive output.
- Utmost frequency stability (± 200 c.p.s. on all bands).
- No plug-in coils required.
- Laboratory tested.
- Power supply required: 400 volts at 32—54 Ma.

DIAL FOR GELOSO V.F.O. UNIT



Geloso
Signal Shifter
Type M4/101

CRYSTAL MICROPHONES

Type M/400 Piezo-electric Microphone: A very attractive chrome plated "ball" type Microphone of small physical size, complete with three yards of twin shielded low-loss cable. Thoroughly shielded. **List Price:** **£5/19/11.**

Type T30: Hand Microphone in well proportioned brown bakelite case. Unit stands on table without need for any stand. Uses UN10 fully screened insert. Complete with 4 ft. of twin screened low-loss cable. **List Price:** **£3/12/-.**



CRYSTAL INSERTS

Type M409: Frequency response 40—7,000 cycles. Extremely robust and mechanically strong. Can withstand falls and knocks. No further casing is required as unit is complete as a Microphone of attractive appearance. **List Price:** **32/11.**

Type M410: Same unit as M409, but with extra screening to exclude R.F. pick up. **List Price** **38/6.**

Type UN10: A complete insert for incorporation in a cage in the manufacture of complete Microphones. Used in Microphones employed with Geloso Wire Recorders. **List Price:** **30/7.**

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